



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,691	01/30/2004	Eric Justin Gould Bear	MSFT-3471/304033.02	8609
41505	7590	08/28/2009	EXAMINER	
WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			MCDOWELL, JR, MAURICE L	
			ART UNIT	PAPER NUMBER
			2628	
			MAIL DATE	DELIVERY MODE
			08/28/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No. 10/769,691	Applicant(s) BEAR ET AL.	
Examiner MAURICE MCDOWELL, JR	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 June 2009.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6,9-17,20-28,31-39 and 42-44 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6, 9-17, 20-28, 31-39, 42-44 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/30/2009 has been entered.

Response to Arguments

2. Applicant's arguments filed 6/30/2009 have been fully considered but they are not persuasive.

3. Applicant argues: Hinckley's detection of the physical orientation of the mobile device results in a new image being presented on a display in an orientation corresponding to the new physical orientation of the mobile device. This is not the same as "detecting a change in orientation of images presented on the display from a first orientation to a second orientation" as claimed. In Hinckley, the display orientation is changed based on the orientation of the device. No detection of the orientation of images presented on a display takes place.

4. Examiner respectfully disagrees: Hinckley's detection of the physical orientation of the mobile device that results in a new image being presented on a display in an orientation corresponding to the new physical orientation of the mobile device is the same as "detecting a change in orientation of images presented on the display from a first orientation to a second orientation", the reason is that this feature is inherently taught by Hinckley because the orientation of an image is tied to the state of an image. For example without image state, there

Art Unit: 2628

would be no way of changing from a portrait to landscape or visa versa. Suppose that the tilt sensor in Hinckley detects that a tilt has occurred in the mobile device, this would trigger the image to change accordingly. However without the image state being stored somewhere in the mobile device, the image has only a 50% chance of changing from portrait to landscape or visa versa. Thus the detecting of a position of a device is synonymous with detecting the orientation of an image. This argument can be equally applied to the argument regarding Tenhunen that was applied to claims 12, 23, and 34.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 4-6, 9, 12-13, 15-17, 20, 23-24, 26-28, 31, 34-35, 37-39, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley et al. Pub. No.: US 2002/0021278 A1 in view of Tenhunen et al. Pub. No.: US 2002/0198029 A1.

7. Regarding claim 1, Hinckley teaches: A method for logically remapping the commands to logical buttons for a navigational device comprising a computing device coupled to a display device having a display, said navigational device having logical buttons and associated commands for such logical buttons, said method comprising; detecting a change in orientation of

Art Unit: 2628

images presented on the display from a first orientation to a second orientation at the computing device (figs. 10 and 11 see also [0072] [0073]).

8. Hinckley doesn't teach: responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the images presented on the display.

9. The analogous prior art Tenhunen teaches: responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the images presented on the display (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the images presented on the display as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

11. Regarding claim 2, Hinckley teaches: The method wherein the display device is a visual display device (figs. 10 and 11).

Art Unit: 2628

12. Regarding claim 4, Hinckley teaches: The method wherein the display device is one from the group comprising: visual display device, audio display device, and tactile display device (figs. 10 and 11).

13. Regarding claim 5, Hinckley teaches: The method further comprising detecting a change in orientation of the display device at the computing device and, responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

14. Regarding claim 6, Hinckley teaches: The method further comprising detecting a command to change the orientation of the images presented on the display from the first orientation to the second orientation at the computing device and, responsive to the detection of the command, automatically changing the orientation of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

15. Regarding claim 9, Hinckley doesn't teach: The method wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.

16. The analogous prior art Tenhunen teaches: The method wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the navigational control device is symmetrical both vertically and

Art Unit: 2628

horizontally, the logical remapping rotates the commands to the logical buttons as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

18. Regarding claim 12, Hinckley teaches: A user interface system attached to a display device for logically remapping the commands to logical buttons for a navigational device coupled to the display device having a display, said navigational device having logical buttons and associated commands for such logical buttons, said system comprising; a subsystem for detecting a change in orientation of images presented on the display from a first orientation to a second orientation (figs. 10 and 11 see also [0072] [0073]).

19. Hinckley doesn't teach: a subsystem for, responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display.

20. The analogous prior art Tenhunen teaches: a subsystem for, responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a subsystem for, responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the

Art Unit: 2628

logical buttons based on the second orientation of the display as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

22. Regarding claim 13, Hinckley teaches: The user interface system wherein the display device is a visual display device (figs. 10 and 11).

23. Regarding claim 15, Hinckley teaches: The user interface system wherein the display device is one from the group comprising: visual display device, audio display device, and tactile display device (figs. 10 and 11).

24. Regarding claim 16, Hinckley teaches: The user interface system wherein, further comprising a subsystem for detecting a change in orientation of the display device, and a subsystem for, responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

25. Regarding claim 17, Hinckley teaches: The user interface system further comprising a subsystem for detecting a command to change the orientation of the images presented on the display from the first orientation to the second orientation, and a subsystem for, responsive to the detection of the command, automatically changing the orientation of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

Art Unit: 2628

26. Regarding claim 20, Hinckley doesn't teach: The user interface system wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.

27. The analogous prior art Tenhunen teaches: The user interface system wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

29. Regarding claim 23, Hinckley teaches: A computer-readable medium having computer-readable instructions for a method of logically remapping the commands to logical buttons for a navigational device coupled to a display device having a display, said navigational device having logical buttons and associated commands for such logical buttons, said method comprising; detecting a change in orientation of images presented on the display from a first orientation to a second orientation (figs. 10 and 11 see also [0072] [0073]).

Art Unit: 2628

30. Hinckley doesn't teach: responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display.

31. The analogous prior art Tenhunen teaches: responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

33. Regarding claim 24, Hinckley teaches: The computer-readable medium wherein the display device is a visual display device (figs. 10 and 11).

34. Regarding claim 26, Hinckley teaches: The computer-readable medium wherein the display device is one from the group comprising: visual display device, audio display device, and tactile display device (figs. 10 and 11).

Art Unit: 2628

35. Regarding claim 27, Hinckley teaches: The computer-readable medium wherein, automatically the method further comprises detecting a change in orientation of the display device and, responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

36. Regarding claim 28, Hinckley teaches: The computer-readable medium wherein, the method further comprises detecting a command to change the orientation of the images presented on the display from the first orientation to the second orientation and, responsive to the detection of the command, automatically changing the orientation of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

37. Regarding claim 31, Hinckley doesn't teach: The computer-readable medium wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.

38. The analogous prior art Tenhunen teaches: The computer-readable medium wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

39. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons as shown in

Art Unit: 2628

Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

40. Regarding claim 34, Hinckley teaches: A hardware control device for a method of logically remapping the commands to logical buttons for a navigational device coupled to a display device having a display, said navigational device having logical buttons and associated commands for such logical buttons, said navigational device further comprising: a component configured to detect a change in orientation of images presented on the display from a first orientation to a second orientation (figs. 10 and 11 see also [0072] [0073]).

41. Hinckley doesn't teach: responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display.

42. The analogous prior art Tenhunen teaches: responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

43. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine responsive to the detection of the change in orientation of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display as shown in Tenhunen with Hinckley for the

Art Unit: 2628

benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

44. Regarding claim 35, Hinckley teaches: The hardware control device wherein the display device is a visual display device (figs. 10 and 11).

45. Regarding claim 37, Hinckley teaches: The hardware control device wherein the display device is one from the group comprising: visual display device, audio display device, and tactile display device (figs. 10 and 11).

46. Regarding claim 38, Hinckley teaches: The hardware control device wherein, the component is further configured to detect a change in orientation of the display device and, responsive to the detection of the change in orientation of the display device, automatically changing the orientation of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

47. Regarding claim 39, Hinckley teaches: The hardware control device wherein, the component is further configured to detect a command to change the orientation of the images presented on the display from the first orientation to the second orientation and, responsive to the detection of the command, automatically changing the orientation of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

48. Regarding claim 42, Hinckley doesn't teach: The hardware control device wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons.

Art Unit: 2628

49. The analogous prior art Tenhunen teaches: The hardware control device wherein, if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

50. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the navigational control device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

51. Claims 10-11, 21-22, 32-33, 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley et al. Pub. No.: US 2002/0021278 A1 in view of Tenhunen et al. Pub. No.: US 2002/0198029 A1 further in view of Kfoury et al. Pub. No.: US 2003/0044000 A1.

52. Regarding claim 10, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The method wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.

53. The analogous prior art Kfoury teaches: The method wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super

Art Unit: 2628

wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4) for the benefit of best accommodating both right and left hand users.

54. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

55. Regarding claim 11, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The method wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

56. The analogous prior art Kfoury teaches: The method wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2 and 3 and 4); and if the images presented on the display are rotated three-

Art Unit: 2628

quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3) for the benefit of best accommodating both right and left hand users.

57. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

58. Regarding claim 21, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The user interface system wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.

59. The analogous prior art Kfoury teaches: The user interface system wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4) for the benefit of best accommodating both right and left hand users.

Art Unit: 2628

60. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

61. Regarding claim 22, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The user interface system wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

62. The analogous prior art Kfoury teaches: The user interface system wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2 and 3 and 4); and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3) for the benefit of best accommodating both right and left hand users.

63. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the images presented on the display are rotated one quarter to the right,

Art Unit: 2628

the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

64. Regarding claim 32, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The computer-readable medium wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.

65. The analogous prior art Kfoury teaches: The computer-readable medium wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4) for the benefit of best accommodating both right and left hand users.

66. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically

Art Unit: 2628

remapped to the logical buttons, relative to the first orientation as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

67. Regarding claim 33, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The computer-readable medium wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

68. The analogous prior art Kfoury teaches: The computer-readable medium wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2-4); and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3) for the benefit of best accommodating both right and left hand users.

69. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed as

Art Unit: 2628

shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

70. Regarding claim 43, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The hardware control device wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.

71. The analogous prior art Kfoury teaches: The hardware control device wherein, the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4) for the benefit of best accommodating both right and left hand users.

72. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the navigational control device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

73. Regarding claim 44, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The hardware control device wherein: if the images presented on the

Art Unit: 2628

display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed.

74. The analogous prior art Kfoury teaches: The hardware control device wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2-4); and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3) for the benefit of best accommodating both right and left hand users.

75. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed; if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed; and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

76. Claims 3, 14, 25, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley et al. Pub. No.: US 2002/0021278 A1 in view of Tenhunen et al. Pub. No.: US

Art Unit: 2628

2002/0198029 A1 further in view of Kfoury et al. Pub. No.: US 2003/0044000 A1 further in view of Pinder et al. Patent No.: 5,758,267.

77. Regarding claim 3, the previous combination of Hinckley and Tenhunen and Kfoury remains as above but doesn't teach: The method wherein the display device is a non-visual display device.

78. The analogous prior art Pinder teaches: The method wherein the display device is a non-visual display device (fig. 1) for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

79. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device is a non-visual display device as shown in Pinder with the previous combination for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

80. Regarding claim 14, the previous combination of Hinckley and Tenhunen and Kfoury remains as above but doesn't teach: The user interface system wherein the display device is a non-visual display device.

81. The analogous prior art Pinder teaches: The user interface system wherein the display device is a non-visual display device (fig. 1) for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

82. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device is a non-visual display device as shown in Pinder with

Art Unit: 2628

the previous combination for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

83. Regarding claim 25, the previous combination of Hinckley and Tenhunen and Kfoury remains as above but doesn't teach: The computer-readable medium wherein the display device is a non-visual display device.

84. The analogous prior art Pinder teaches: The computer-readable medium wherein the display device is a non-visual display device (fig. 1) for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

85. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device is a non-visual display device as shown in Pinder with the previous combination for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

86. Regarding claim 36, the previous combination of Hinckley and Tenhunen and Kfoury remains as above but doesn't teach: The hardware control device wherein the display device is a non-visual display device.

87. The analogous prior art Pinder teaches: The hardware control device wherein the display device is a non-visual display device (fig. 1) for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

88. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device is a non-visual display device as shown in Pinder with

Art Unit: 2628

the previous combination for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAURICE MCDOWELL, JR whose telephone number is (571)270-3707. The examiner can normally be reached on Mon-Friday 7:30am - 5:00pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571--272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM

/XIAO M. WU/
Supervisory Patent Examiner, Art Unit 2628